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TAGS: KSCA SENV TSPL ECON SOCI IN

SUBJECT: India as Innovation and Technology Partner; Pondering S&T Endowment

11. SUMMARY: Secretary of the Department of Science and Technology (DST) Dr. T. Ramasami September 25 reaffirmed his interest in increasing U.S.-India collaboration in the areas of innovation and technology. He cited energy efficiency - especially fuel efficient transportation - security technologies, solar energy, telecom, drug discovery, healthcare systems, and water as areas of key interest for India. At the same time, Ramasami voiced concerns about how the parts of the strategic S&T Dialogue would fit together. He proposed a scenario in which the functions of the Indo-U.S. Science and Technology Forum ("Forum") would be merged into the new S&T Endowment ("Endowment"), with the current Forum Secretariat assuming that role for the Endowment. DST has not yet selected India's S&T Endowment Board members, and seems unlikely to be ready to announce them during Prime Minister Singh's U.S. visit. The DST Americas Desk Officer requested a DVC with Washington to coordinate on these issues prior to the December Forum Board meeting. See action request in paragraph 7. END SUMMARY.

DST PRIORITIES AND COLLABORATION INTERESTS

12. DST Secretary Ramasami, the Department's senior career official, met September 25 with Embassy Econ/EST Counselor and S&T Officer to discuss priorities for S&T collaboration between the United States and India. Ramasami was joined by Dr. B.K. Jain, DST Americas Desk Officer. Ramasami opened the discussion by recognizing there is a

great deal of U.S.-India interaction taking place at the scientist-to-scientist level. Over the next 10-15 years he would like to see that migrate to more country-to-country engagement among scientific and research institutions. Ramasami outlined three pillars for this kind of collaboration in S&T: science for a "grand challenge", innovation partnership, and technology partnership. He said the GOI's S&T priorities are innovation and technology because they make economic sense. Secretary Ramasami highlighted security technologies, fuel efficient transportation and energy efficient habitats, solar energy, telecom and wireless communications, drug discovery, healthcare systems, and water as areas of key interest for India. Praising the U.S. innovation system as the best in the world, Ramasami said India most needs help with "translational skills" - turning knowledge into application. He said that India in return can offer the U.S. an innovation investment environment at much lower cost, and support low financial risk/high technical risk projects. Specifically, he highlighted three projects or areas that could be further developed for joint or coordinated research:

- -- Security Technology: Conceived in 2006, and spearheaded by ISC Bangalore, DST is working to create terahertz sensors and information processing/data reduction systems that will recognize people "with wrong intentions." He indicated that he would be happy to cooperate on this research, was prepared to back it up with resources, and that a joint initiative on this sensor technology would show progress to both publics that is both visible and immediate.
- -- Clean Coal: Ramasami said that clean coal and alternative energy sources provided numerous opportunities for research on new

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applications, processes and products. He believes India has the ability to exit coal-based technology but that it will take time because giving it up is not just a policy issue but also a cultural one. He reflected that India is a multicultural country, but not yet a homogeneous one, and socio-cultural changes are slow to come even when policies are in place.

-- Drug Research: Noting the current mode of drug discovery is excessively expensive and time consuming, Ramasami suggested end results of the innovation do not reach two thirds of the population because of cost. DST would be interested in working with the U.S. to look for different models to address a key disease.

RAMASAMI'S PERSPECTIVE ON THE S&T ENDOWMENT

- ¶3. Secretary Ramasami said he is interested in using the Endowment to address a "grand challenge" in science. While characterizing the \$30 million Endowment as "not very much," he said using this funding merely to promote research visitation programs or develop scientific seminars would lack ambition. Rather, Ramasami said, DST views the Endowment as a platform, and the money as a bridge to link national agencies and industries to support research identified by the Endowment. He believes synergy between the U.S. and India could produce solutions that were not previously within reach, giving the example of creating a material that would collect both heat and light for solar energy. In his view, the Endowment should focus on technologies for trade rather than technologies for development. He acknowledged that intellectual property right issues would need to be addressed. Ramasami also suggested that the Board could focus on one particular topic or theme each year to achieve tangible outputs that make the most of the Endowment's limited money. He said this focused approach has worked well in India's cooperative S&T arrangement with the EU, in which they jointly choose a single project area and each side annually contributes 5 million Euros.
- ¶4. E/ESTCOUNS expressed appreciation for Ramasami's ambitious "grand challenge" idea as a focus of Endowment activities, agreeing that the U.S. too wants to use the Endowment to advance tangible S&T cooperation projects. He cautioned that care must be taken to ensure the Endowment does not duplicate S&T work being funded by separate cooperative efforts in areas like clean and renewable energy. Noting that Endowment Board constitution could be a deliverable for Prime Minister Singh's November visit, E/ESTCOUNS further queried what other S&T deliverables DST might foresee for

the PM's visit. Ramasami demurred on both points. He said India can identify government participants for the Endowment Board, but has not yet determined its non-government participants. He suggested that constitution of the Endowment Board would be a topic for bilateral discussion around the Forum Board meeting at NIH/Bethesda in December. Ramasami is considering a DST panel discussion with 10-15 industry participants before December to discuss India's priorities for the S&T Endowment. He would use this to select the four industry Board members based on their passion, vision, commitment, and ability to intellectually and systematically absorb increased high-technology collaboration. He said he was

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thinking about bringing in engineering and ICT companies specifically, and wants to ensure a good match with the industry participants on the U.S. side. Ramasami did not respond at all regarding other S&T deliverables for the Singh visit.

- 15. Secretary Ramasami went on to express concerns about having two official joint funding bodies, indicating he did not want the Forum and Endowment to compete with one another. Ramasami said the structure of India's S&T system in practice dictates that the same group of government representatives serve on all three official venues (Forum Board, Endowment Board, and S&T Dialogue aka the JCM). The GOI already has staffed the Forum Board with empowered representatives of India's mainline official science institutions; unless these representatives serve on all the boards, lower-level personnel without authority to make decisions or speak for the GOI would become the representatives on the others.
- 16. Ramasami suggested his preference would be to dissolve the Forum Board and fold the Forum's funding and activities into the Endowment. Both activities could be run day-to-day by the existing Forum Executive Secretariat. Ramasami said it would take at least a year and a half to legally register a separate Executive Secretariat for the Endowment in India. While acknowledging the organizational and legal factors shaping this position, E/ESTCOUNS stated that the USG has viewed the Forum and Endowment as separate entities with distinct missions.
- ¶7. To avoid any misunderstandings and sort all of these issues out well in advance of the Forum Board meeting in early December, Americas Desk Officer Jain requested a DVC with planners in Washington. He indicated DST would like to discuss the objective of the Endowment, coordinate on appropriate members, and identify who, structurally, should be in which positions for the three parts of the Strategic Dialogue (Forum, Endowment, and JCM.) Post requests feedback on interest and potential timings for such a DVC, and recommends holding it sooner rather than later so that we can also discuss and solidify potential S&T deliverables for Prime Minister Singh's visit.

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